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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,352	03/23/2004	Thomas M. Rent	02708.0033.CNUS01	3993
22930	7590	07/25/2005	EXAMINER	
HOWREY LLP C/O IP DOCKETING DEPARTMENT 2941 FAIRVIEW PARK DR, SUITE 200 FALLS CHURCH, VA 22042-2924			CHANG, YEAN HSI	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/806,352	<b>Applicant(s)</b> RENT, THOMAS M.	
	<b>Examiner</b> Yean-Hsi Chang	<b>Art Unit</b> 2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Terminal Disclaimer***

1. The terminal disclaimer filed on 7/6/05 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Pat. No. 6,721,821 B1 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsukada et al. (US 5,481,432).

Tsukada teaches an electronic data storage apparatus (fig. 13) for use in connection with an electronic data processing device (55), comprising: a removable substrate (340), at least one electronic data storage device (a flash memory device 60),

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said at least one electronic data storage device mounted on said substrate (fig. 16), electrical circuitry (58) operably associated with said substrate and said at least one electronic data storage device, and means (bus shown in fig. 13, not labeled) for electrically connecting said electrical circuitry with said data processing device (claims 1 and 4); wherein said substrate comprises a printed circuit card (see col. 20, line 32) (claim 2); wherein said at least one electronic data storage device comprises a hard disk drive (260) (claim 3); wherein said means for electrically connecting said electrical circuitry with said data processing device comprises a multi-pin electrical connector (24) (claim 5); and a controller (58) for controlling transfer of data to and from said at least one electronic data storage device and said data processing device (see col. 7, lines 26-30) (claims 6-7).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 8 is rejected under 35 U.S.C. 102(e) as being anticipated by Kakuta et al. (US 5,600,783).

Kakuta teaches an electronic data storage apparatus (fig. 1A) for use in connection with an electronic data processing device (1, fig. 1), comprising: a plurality of substrates (5A), wherein each of said substrates is configured for selective installation in said electronic data processing device (shown in fig. 2), at least one electronic data

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storage device (5) mounted on each of said substrates (fig. 1), electrical circuitry (20) operably associated with each of said substrates and said at least one electronic data storage device, and a controller (8) for controlling transfer of data to and from said at least one electronic data storage device mounted on each of said substrates (see fig. 3 and col. 5, lines 35-64).

6. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Kakuta et al.

Kakuta teaches an electronic data processing apparatus (fig. 1A) comprising: a processing unit (1, fig. 1), a data storage apparatus (5A, fig. 1) including a removable substrate (5A, fig. 2, 5A is removable from 27), an electronic data storage devices (5) mounted on said substrate, electrical circuitry (20) operably associated with said substrate and said electronic data storage device (shown in fig. 1), and means (37) for electrically connecting said electrical circuitry with said processing unit (shown in fig. 1), a controller (8) for controlling the transfer of data to and from said at least one data storage device and for controlling the transfer of data to and from said at least one processing unit (see col. 4, lines 40-45), and a switch (11) for directing data from at least one of said processors to at least one of said data storage devices and for directing data from at least one of said data storage devices to at least one of said processors (see fig. 3 and col. 5, lines 35-64).

7. Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Kakuta et al.

Kakuta teaches an electronic data storage apparatus (fig. 1A) comprising: a substrate (5A) adapted for selective insertion into a chassis (a chassis may be represented by motherboard 37), at least one first electronic data storage device (5) connected to said substrate (fig. 1), said substrate comprising at least one electrical conductor (see fig. 1) corresponding to said at least one first electronic data storage device, and said at least one first electronic data storage device electrically coupled to said at least one electrical conductor (shown in fig. 1).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1 and 9 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's arguments filed 7/6/05, with respect to claims 8 and 10 have been fully considered and are persuasive. The original rejection of claims 8 and 10 has been withdrawn.

### ***Correspondence***

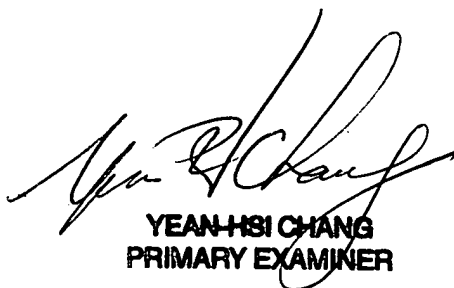
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (571) 272-2038. The examiner can normally be reached on 07:30 - 16:00, Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the Art Unit phone number is (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8558.

Yean-Hsi Chang  
Primary Examiner  
Art Unit: 2835  
July 21, 2005



YEAN-HSI CHANG  
PRIMARY EXAMINER